Integrative Endocrinology
The Rhythms of Life

Donald R. Beans

Routledge
Taylor & Francis Group
NEW YORK AND LONDON

First published 2010
by Routledge
270 Madison Ave, New York, NY 10016

Simultaneously published in the UK
by Routledge
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

Routledge is an imprint of the Taylor & Francis Group, an informa business

This edition published in the Taylor & Francis e-Library, 2009.

To purchase your own copy of this or any of Taylor & Francis or Routledge collection of thousands of eBooks please go to www.eBookstore.tandf.co.u

Library of Congress Cataloging-in-Publication Data
Beans, Donald R.
Integrative endocrinology: the rhythms of life / Donald R. Beans.
p. cm.

4 Gland Cell Therapy

Using the endocrine glands of animals and other tissues to treat disorders of the same gland or tissue in humans is a practice known from the beginning of written medical history. It is at once the beginning of modern endocrinology and one of the most ancient medical practices.

The earliest writings about this therapy in the Western medical tradition begin with Hippocrates. Later, Pliny the Elder in his monumental work *Natural History* devotes many chapters to the use of animal tissues in the treatment of human ailments. Of particular interest is Book 28, which outlines the drugs obtained from animals; Book 29 is about animals and the history of medicine; and Books 30 and 31 conclude his elucidation of the drugs of human medicine obtained from animals. This text, originally in Latin and completed around 67 AD, is translated into English (Pliny, [72] 1938).

From an Oriental perspective, glandular therapy was first codified in the *Chien Chin Fang* compiled by Sun Su Mo around 618 AD. This text describes the use of animal liver to treat human liver ailments and, long before Murray (1891), the use of goat thyroid for the treatment of goiter.

The birthday of modern endocrinology is June 1, 1889, when the renowned French physiologist Charles-Edouard Brown-Sequard reported on his self-injections of a solution made from the testicles of dogs and guinea pigs. Brown-Sequard wrote in *The Lancet*,

> I have made use, in subcutaneous injections, of a liquid containing a small quantity of water mixed with the three following parts: first, blood of the testicular veins; second, semen; and third, juice extracted from a testicle, crushed immediately after it was taken from a dog or a guinea-pig.
>
> (Brown-Sequard, 1889)

He then injected one cubic centimeter of the filtered mixture. He took 10 injections over 20 days.

At the age of 72 years, he felt his strength had been diminishing for 10 to 12 years to the point where he had to sit down after only 30 minutes work

in the laboratory. At the end of the day, he would eat hastily at 6 p.m. and go immediately to bed, exhausted. After the injections, he could work for several hours without becoming tired and in the evening after supper, do laboratory work, or write on difficult subjects. For one week before the trial and one month following the first injection, he tested his limb strength with a dynamometer. The results were that his right forearm flexors before the injections measured 32 to 37 kg, and after the injections measured 39 to 44 kg. Twenty-five years earlier, he could lift 40 to 46 kg.

He also measured urination and defecation; both were very much improved after the injections. He began to run up the stairs, which had been his previous custom.

By July 3, 1889, the effect had diminished. He wondered about autosuggestion, but the fact that the results wore off contradicts this idea. Dr. M. G. Variot of Paris tried the same injections on three old men with similar results. He also gave water injections to two patients without effect. None of Variot's patients was aware of Brown-Sequard's work and was told only that they were receiving fortifying injections. This is a small sample, but is still a placebo-controlled trial. By the end of 1889, only a few months after publication of the *Lancet* article, 12,000 physicians were using Brown-Sequard's method (Brown-Sequard, 1889).

Live Cell Therapy is the injection of glandular material from various animals to aid in the recovery of function of the endocrine glands of humans. The credit for this therapy goes to Dr. Paul Niehans MD of Switzerland in 1930. However, there is essentially no difference between Dr. Neihans' therapy and the injections performed by Brown-Sequard in 1889, except perhaps that later in his career Neihans began using fetal glandular tissue to decrease the potential of an anaphylactic reaction, because the fetal cell surface did not contain the immune response-triggering characteristics of adult animals. Neihans also mentions in his book (Neihans, 1960) that the cells can be frozen at a very low temperature and then dehydrated. Lyophilization is the process of freezing and drying glandular material. This method preserves the cells for at least 1 year. Modern laboratories are now preserving cells that are not dried, but kept in a fluid medium under refrigeration; they can be preserved for several years and still remain viable.

Critics of gland cell therapy have a fundamental flaw in their opposition to this age-old practice. They believe that only the hormone produced by a gland can have an effect in the body.

Hans Selye was an endocrinologist from Toronto. He wrote a textbook on endocrinology and was the first to write about the general adaptation syndrome that is the body's reaction to stress. Selye writes, "on the basis of what we know about the chemical properties of the testis hormone, his [Brown-Sequard] extracts could not possibly have contained sufficient amount to produce any detectable effect" (Selye, 1947).

This kind of thinking pervades modern endocrinology as it relates to oral gland cell therapy or cell injection therapy. It also completely ignores the facts of the experiments and the experience of thousands of physicians, because the information does not happen to fit Selye's idea of how the endocrine gland cell therapy works. He does not quote from his personal experience with cell therapy or any experimental evidence, just his own idea.

Expressing the opposite view was Charles Sajous. Sajous writes, "No one who, as I did, saw Brown-Sequard before and after he had submitted himself to this treatment could stretch his imagination sufficiently to attribute the change in his appearance to auto-suggestion. He literally looked twenty years younger" (Sajous, 1922). Sajous was there as a witness to what happened to Brown-Sequard, unlike Selye who is making up what must have happened. Is this another of many attempts to rewrite the history of medicine?

Since Banting's isolation of insulin in 1921 from pancreatic islet cells, the whole of the ordinary medical profession has been focused on isolating the one factor of each gland that causes the greatest and most expeditious effect. Ordinary endocrinology totally ignores any other cofactors or any possibility of rebuilding the gland rather than just replacing its function with an externally administered hormone.

Because of this thinking, ordinary endocrinology is focused on hormone replacement therapy (HRT), whether insulin for the diabetic, estrogen for the menopausal female, thyroxin for deficient thyroid, or testosterone for hypogonadism.

Harvey Cushing, a famous endocrinologist from the early 1900s and pioneer of pituitary surgical techniques, is often held out as one of the early endocrinologists who stood for scientific and rational medicine. Even Cushing advocates glandular feeding by oral administration or injection:

> It was our experience with a series of experimentally hypophysectomized dogs to find that animals suffering from a known deficit of glandular secretion could be benefited by injection of extracts, by glandular feeding or by implantations of hypophyses from other sources. Other animals in whom "nearly total" removals had been performed could, by glandular administration, be permanently tided over the critical post-operative period in which acute symptoms of glandular insufficiency argued a fatal issue, the remaining fragment of the gland in the meantime undergoing a compensatory hyperplasia until it sufficed for the physiologic needs of the animal, at which time the glandular feeding could be safely discontinued.
>
> Unquestionably these symptoms can be ameliorated by glandular administration in one form or another. In view of the fact that the malady is a polyglandular one, as has been emphasized, the administration

> of extracts of glands other than the one primarily involved—at least of glands such as adrenal and thyroid, which show secondary deficiencies—may be of service. Examples are given in the case reports of patients definitely improved by thyroid feeding, and in the case of a eunuchoid giant with signs of secondary hypo-adrenalism (asthenia, pigmentation and low blood pressure) I have seen marked benefit from adrenal administration.
>
> (Cushing, 1911)

It is obvious from Cushing's experience that to him glandular feeding was for rebuilding the glands and not for replacing their function. He was using pituitary, adrenal, and thyroid glandular extract to improve the hormone-producing abilities of those glands.

Experimentation done in Germany and Austria has produced some interesting results that indicate that it is not the hormone content of glandular administration that is responsible for its action. Schmid makes it clear that the 17-ketosteroid hormone content of adrenal gland could not account for the increased urinary output of the hormone:

> Kuhn and Knuchel found that 5 to 8 mg of 17-ketosteroids are applied per 100 to 150 mg of lyophilized adrenal gland tissue. However, the increased daily urinary output of 17-ketosteroids over a period of several weeks following the injection ranged between 8 and 9 mg. They were right to conclude that the amount of hormones injected was by no means sufficient to account for the increased output. Therefore we are not dealing with a substitution, but rather with an activation of an intensifying mechanism, about which we know little.
>
> (Schmid and Stein, 1967)

In a current commercially available preparation such as Standard Process Desiccated Adrenal,® the amount of adrenal gland is 130 mg per tablet. This tablet size is in the same range as the amounts used by the above authors.

Schmid continues with this thesis, "In addition, the results of studies by NEUMANN (1954), BERNHARD and KRAMPITZ (1957), STRUM (1955), KUHN and KNUCHEL (1954), KNUCHEL (1955) and other authors are incompatible with the concept that the hormones contained in the transplanted (injected) tissue could explain the effects of cellular therapy" (Schmid and Stein, 1967).

As each hormone was isolated and synthesized, the injectable gland cell product was taken out of general medical use and discussion removed from texts like the American Medical Association publications on drugs and other medical treatments (*American Medical Association*, 1916, 1946). The misconception that substituting for the glands' function was somehow equal to or better than the administration of gland cell preparation aimed at

rebuilding the function of the gland is devastating to the recovery of patients who want to remain without dependence on synthetic hormones for life. Because of this error, ordinary medicine uses these suppressive synthetic hormones as its only treatment for glandular weakness.

The real use of these isolated, synthetic substances should be limited to substitution therapy at the time of complete glandular failure. A Type 1 diabetic needs insulin to survive. A woman with surgical menopause at an early age needs to replace ovarian hormones. A person with thyroid cancer, which makes the complete removal of the gland necessary, must have hormone replacement therapy to avoid serious ramifications.

In each of these cases, there is no possibility of stimulating the gland to function normally. In addition, there is no danger of decreasing the function of the gland through suppression, by substituting for its function. In these cases, the administration of hormones is prudent and safe.

Each gland chapter gives references to sources of glandular material and their dose so the practitioner can compare glandular sources to make an informed decision about the amount of a glandular material to administer in any situation.

Unfortunately, injectable glandular preparations are difficult to obtain in the United States, and their legality is somewhat in question. Because of these facts, we must rely on oral administration of gland cell therapy products.

As recently as the 1940s, every major drug manufacturer in the United States produced these injectable materials (Wolf, 1940). Many companies continued for years after. These materials are widely available in Europe and Mexico at very reasonable prices.

Combination Glandular Products

The use of combination products in gland cell therapy has been popular for many years. These combinations contain the animal gland and often herbs or synthetic vitamins known to help build or nourish the gland. If you use these products, keep some facts in mind. The manufacturer chose, usually for reasons not known to the practitioner, certain vitamins or minerals, to add to a gland substance to enhance the effect of the gland material. This is a problem because it prevents the individual practitioner from choosing the right combination of elements to treat the patient holistically. It is better to choose whole foods for the vitamin and mineral content you want to give and select only the individual gland material that each patient needs.

The only time to select a readymade formulation is through personal experience with that formula and research into the reasons for each ingredient's inclusion in the formula. Integrative endocrinology demands selection of individual ingredients for each case, not the use of prepared combination products,

which often contain synthetic vitamins or herbal extracts that may not be appropriate for every patient.

Gland cell therapy is the premiere method for treating the endocrine system. The gland causing the patient's trouble can be targeted easily, and the exact nutrients needed in the exact combination and amounts needed by the gland for rebuilding are all present.